

JAPANESE [JP,3066911,U]

CLAIMS DETAILED DESCRIPTION TECHNICAL FIELD PRIOR ART EFFECT OF THE
INVENTION TECHNICAL PROBLEM MEANS EXAMPLE DESCRIPTION OF DRAWINGS
DRAWINGS CORRECTION or AMENDMENT

[Translation done.]

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CLAIMS

[Utility model registration claim]

[Claim 1] It is a marginal wall with an annular periphery edge to vertical both sides of the disk section of a ***** major diameter from the pillar-like rod to connect. The rod edge **** cavity of ***** is cut at the same center as this disk section so that it may form. the width across corners and height of a hexagon nut which are fitted in an undersurface center section — respectively — ***** — the hexagon head which prepares a large pillar-like height and penetrates the shaft-orientations center of this height and to which a hexagon nut caves in [the upper part] loosely — with a hole The connection implement of the main part of a connection implement with which the lower part punched a little the boss to which the periphery section makes the flange of the letter of turning inward by the major diameter from the external diameter of thread of this nut, and the pillar-like rod which consists of a screw-thread shaft of ** length screwed in the aforementioned hexagon nut and this.

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DETAILED DESCRIPTION

[Detailed explanation of a design]

[0001]

[The field of the technology in which a design belongs]

This design is related with the connection implement in the structures, such as a building and furniture, which connects a pillar-like rod free [attachment and detachment].

[0002]

[Description of the Prior Art]

In order to connect conventionally the handrail of a building, and the wooden pillar-like rod used for furniture etc. free [attachment and detachment] Shaft orientations **** to the end-face core of the pillar-like rod of a connected side, screw a hole on, and the screw-thread rod which the above ****s and is screwed in a hole is implanted in the end-face core of the pillar-like rod by the side of connection at shaft orientations. the screw thread of the pillar-like rod of a connected side — the screw-thread rod of the pillar-like rod by the side of connection was screwed in the state where both end faces carry out a plane of composition, and it has connected with a hole

[0003]

[Problem(s) to be Solved by the Device]

however, the screw thread formed in the connection side edge side of the both sides of the rod to connect in the connection method of the rod like the above — both the hole and the screw-thread rod screwed in this were the shaft orientations of a rod, and since it had to be in the core of each connection side edge side, its working efficiency at the time of processing was bad, and it had the trouble of not suiting mass production

[0004]

[Means for Solving the Problem]

This design inserts a hexagon nut in six square holes of the main part of a connection implement fixed to a connected side rod loosely. Even if there are gap which gave the margin to move this nut a little within 6 square holes, and was implanted in the connection side rod and whose attachment of a shaft it ****s and is some to a center, and an inclination It becomes connecting completely is possible on the same center line, and easy for it to implantation work [of the screw-thread shaft to the connection side rod at the time of processing], without ****ing with a nut, being automatically adjusted on the occasion of screwing of a shaft, and producing trouble in connection of a rod.

[0005]

[The gestalt of implementation of a design]

The connected side rod of the shape of a pillar connected by this design and a connection side rod make the end face by the side of each connection a shaft axis and a right-angled flat surface.

[0006]

The machine screw for attachment (a wood screw is included) which fixes the main part of a connection implement, and the hexagon nut and the main part of a connection implement which are built in this main part to a connected side rod constitutes the connection implement of this design.

[0007]

The main part of a connection implement is the path which is sufficient for fitting in the edge of the aforementioned rod so that a periphery edge may form an annular marginal wall in vertical both sides of the disk section of **** by the ***** major diameter from a rod. The rod edge **** cavity by the same center as the disk section is cut, the pillar-like height of **** is prepared in the center of an inferior surface of tongue, and the shaft-orientations center of this height is penetrated. the upper part by six square holes the machine screw insertion for attachment which drills the boss for the screw-thread shaft insertion whose edge section makes the letter flange of turning inward for the lower part, and penetrates the disk section to the method of an outside of a pillar-like height — the main part of a connection implement which prepared the hole is formed

[0008]

the hexagon head which prepared the main part of a connection implement in the pillar-like height — a hole — inside — this hexagon head — a hole — the inside of the rod edge **** cavity cut in the upper surface of the disk section where the hexagon nut of the size which can move a little inside is inserted in — the connection side edge section of a connected side rod — fitting in — the machine screw insertion for attachment — it binds tight through the machine screw for attachment, respectively to a hole, and the main part of a connection implement is fixed

[0009]

The circular cavity which fits the pillar-like height of the main part of a connection implement in a center section is prepared in the connection side edge side of a connection side rod. Implantation fixation of the screw-thread shaft is carried out so that it may expose perpendicularly highly a little from the depth of this cavity at the center, it screws in the hexagon nut built in the main part of a connection implement which was implanted in the connection side rod, and which fixed the shaft to the connected side rod by ****ing, and binds tight, and a connected side rod and a connection side rod are connected free [attachment and detachment] through a connection implement.

[0010]

[Example]

Below, about the example of this design, a drawing is made reference and explained. Drawing 1 shows the state where the connected side rod A which consists of the shape of a pillar of the diameter of said, and the connection side rod B were connected with the connection implement C.

[0011]

It is a ***** major diameter from rod [of the above / drawing 6 / drawing 2 or] / A (B). to and vertical both sides of the disk section 1 of **** Consist of the same center as the disk section 1 with the path which is sufficient for fitting in the edge of this rod so that a periphery marginal part may form the annular marginal wall 2. The large pillar-like height 6 is formed. the width across corners a of the hexagon nut 5 which cuts the rod edge **** cavities 3 and 4 of *****, and carries out a postscript to an inferior-surface-of-tongue center section, and height h — respectively — ***** — The upper part which penetrates the shaft-orientations core of this height 6 by six square holes 7 which a hexagon nut 5 **** loosely The lower part of a major diameter is more nearly circular than the external diameter of thread of a hexagon nut 5 a little, and the boss 9 to which the ulnar-margin section makes the letter flange 8 of turning inward is drilled. the adequate several machine screw insertion for attachment which penetrates the rod edge **** cavities 2 and 3 depending on the method of an outside of the pillar-like height 6 — a hole 10 and 10 — were drilled — A metal or the main part 11 of a connection implement made from plastics is formed, and the connection implement C by the screw-thread shaft 12 of the ** length who screws in this main part 11 of a connection implement, a hexagon nut 5, and a nut 5 and the machine screw 13 for attachment of a required number, and 13 — is constituted.

[0012]

Use of the connection implement C by this design is explained below.

The connected side rod A of the shape of an above pillar, and the connection side rod B from drawing 7 or drawing 9 Make both the end faces 14-15 by the side of connection into a right-angled flat surface at shaft-axis X-X, and the circular cavity 16 which fits the pillar-like height 6 of the main part 11 of a connection implement in a center section is formed in the end face 15 of the connection side rod B. It implants and fixes to the center of the cavity 16 of the connection side rod B so that the screw-thread shaft 12 may be exposed perpendicularly [it is higher than the depth of the aforementioned pillar-like height a little, and] in a cavity 16.

[0013]

Where a hexagon nut 5 is inserted in six square holes 7 prepared in the pillar-like height 6 of the main part 11 of a connection implement Into the rod edge **** cavity 3 cut in the upper surface of the main part 11 of a connection implement, the edge by the side of the connection side edge side 14 of the connected side rod A is fitted in. It lets pass and screws on a hole 10 and 10 —. the machine screw 13 for attachment, and 13 — respectively — the machine screw insertion for attachment — The main part 11 of a connection implement is fixed to the edge of the connected side rod A, it screws in the hexagon nut 5 built in the main part 11 of a connection implement which was implanted in the connection side rod B, and which fixed the shaft 12 to the connected side rod A by ****ing, and binds tight, and the connected side rod A and the connection side rod B are connected free [attachment and detachment] through the connection implement C.

[0014]

in addition, the path of the rod edge **** cavity 3 prepared in the vertical side of the main part 11 of a connection implement in this design when the paths of the connected side rod A and the connection side rod B differ, and 4 ** — respectively — Rod A — ** — what is necessary is just to cope with it corresponding to the path of Rod B

[0015]

[The effect of this design]

The hexagon nut loosely inserted in six square holes of the main part of a connection implement fixed to the connected side rod of this design Since ***** is also adjusted automatically, the gap which was implanted in the connection side rod since it was possible within 6 square holes to move a little and which it ****s and is some at attachment of a shaft, and an inclination Without causing trouble to connection of a rod, it can connect completely on the same center line, and it becomes easy to implantation work [of the screw-thread shaft to the connection side rod at the time of processing].

To moreover, the marginal wall peripheral face of the periphery edge of the disk section of the main part of a connection implement It has the practical effect which was [improve / the added value of goods] excellent by engraving a pattern or giving color.

[Translation done.]

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TECHNICAL FIELD

[The field of the technology in which a design belongs]

This design is related with the connection implement in the structures, such as a building and furniture, which connects a pillar-like rod free [attachment and detachment].

[0002]

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PRIOR ART

[Description of the Prior Art]

For connecting conventionally the handrail of a building, and the wooden pillar-like rod used for furniture etc. free [attachment and detachment] the end-face core of the pillar-like rod of a connected side — the screw thread of shaft orientations — a hole — screwing on — the screw thread of the above [core / end-face / of the pillar-like rod by the side of connection] — the screw-thread rod screwed in a hole — shaft orientations — implanting — the screw thread of the pillar-like rod of a connected side — the screw-thread rod of the pillar-like rod by the side of connection was screwed in the state where both end faces carry out a plane of composition, and it has connected with a hole

[0003]

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EFFECT OF THE INVENTION

[The effect of this design]

The hexagon nut loosely inserted in six square holes of the main part of a connection implement fixed to the connected side rod of this design, It becomes easy to implantation [of the screw-thread shaft to the connection / can connect completely on the same center line, without causing trouble to connection of a rod, since it ****s and ***** is also automatically adjusted for some gaps or an inclination to attachment of a shaft, and / side rod at the time of processing implanted in the connection side rod since it was possible within 6 square holes to move a little] work.

To moreover, the marginal wall peripheral face of the periphery edge of the disk section of the main part of a connection implement It has the practical effect which was [improve / the added value of goods] excellent by engraving a pattern or giving color.

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TECHNICAL PROBLEM

[Problem(s) to be Solved by the Device]

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MEANS

[Means for Solving the Problem]

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EXAMPLE

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[0015]

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] Front view in the state where the connected side rod and the connection side rod were connected with the connection implement

[Drawing 2] The main part of a connection implement is the front view showing a cross section a part.

[Drawing 3] The plan of the main part of a connection implement

[Drawing 4] The bottom plan view of the main part of a connection implement

[Drawing 5] Front view of a hexagon nut

[Drawing 6] Front view of a screw-thread shaft

[Drawing 7] Front view in the state where the connection implement was fixed to the connected side rod

[Drawing 8] The state where ****ed to the connection side rod and the shaft was implanted is the front view showing a cross section a part.

[Drawing 9] The expanded sectional view showing the outline of the connection state of a connected side rod and a connection side rod

[Description of Notations]

A Connected side rod

B Connection side rod

C Connection implement

1 Disk Section

2 Marginal Wall

3 Rod Edge **** Cavity

4 Rod Edge **** Cavity

5 Hexagon Nut

6 Pillar-like Height

7 Six Square Holes

8 Letter Flange of Turning Inward

9 Boss

10 Machine Screw Insertion for Attachment — Hole

11 Main Part of Connection Implement

12 Screw-Thread Shaft

13 Machine Screw for Attachment

16 Cavity

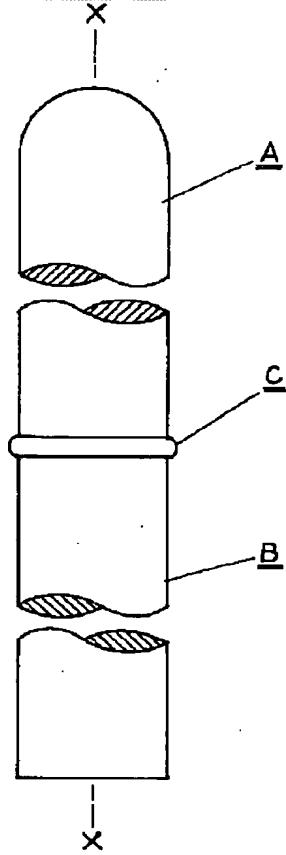
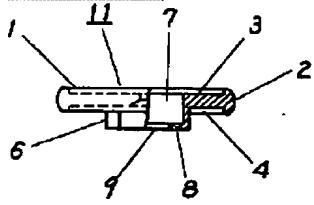
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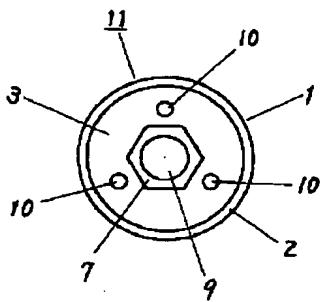
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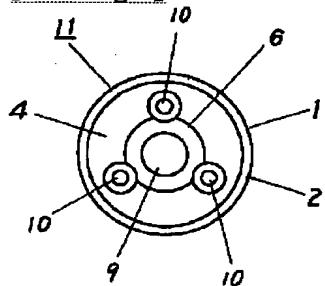
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DRAWINGS

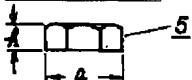
[Drawing 1]**[Drawing 2]****[Drawing 3]**



[Drawing 4]



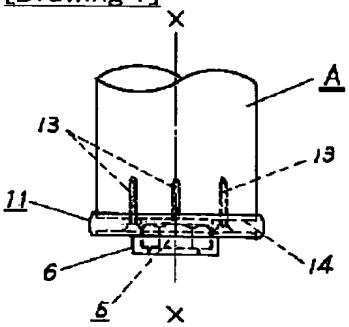
[Drawing 5]



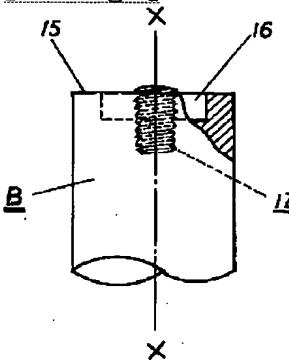
[Drawing 6]



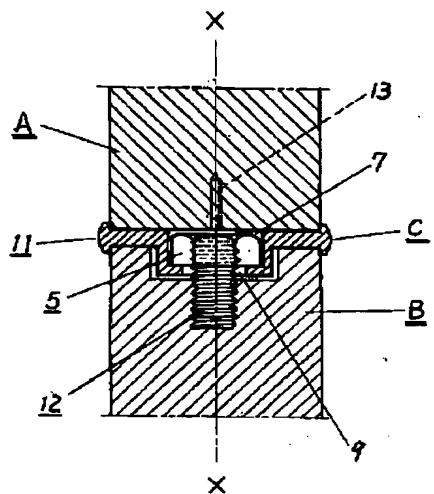
[Drawing 7]



[Drawing 8]



[Drawing 9]



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CORRECTION or AMENDMENT

[Official Gazette Type] Correction of a registration utility model official report

[Section partition] The 2nd partition of the 4th section

[Date of issue] October 20, Heisei 12 (2000. 10.20)

[Registration number] Utility model registration No. (U3066911) 3066911

[Registration day] December 15, Heisei 11 (1999. 12.15)

[Registration official report date of issue] March 7, Heisei 12 (2000. 3.7)

[**** format] Registration utility model official report 12-28

[Filing Number] An application-for-a-utility-model-patent common 11-7509

[Correction summary] A whole sentence is corrected per error of an international classification as follows.

[The 7th edition of International Patent Classification]

E04B 1/58 503

E04F 11/18

F16B 7/18

[FI]

E04B 1/58 503 L

E04F 11/18

F16B 7/18 A

[Account] The passage of an attached sheet

(19) [Country of Issue] Japan Patent Office (JP)

(12) [Official Gazette Type] Registration utility model official report (U)

(11) [Registration number] Utility model registration No. (U3066911) 3066911

(24) [Registration day] December 15, Heisei 11 (1999. 12.15)

(45) [Date of issue] March 7, Heisei 12 (2000. 3.7)

(54) [The name of a design] The connection implement of a pillar-like rod

(51) [The 7th edition of International Patent Classification]

E04B 1/58 503

E04F 11/18

F16B 7/18

[FI]

E04B 1/58 503 L

E04F 11/18

F16B 7/18 A

[A claim of an evaluation document] Un-asking.

[The number of claims] 1

[Mode of Application] Document

[Number of Pages] 8

(21) [Filing Number] An application-for-a-utility-model-patent common 11-7509

(22) [Filing Date] August 25, Heisei 11 (1999. 8.25)

(73) [Utility model right person]

[Identification Number] 598066949

[Name] 8 TSU ***** limited company

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(72) [Designer]

[Name] 8 TSU ** Yoichi

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(72) [Designer]

[Name] 8 TSU ** Keiichi

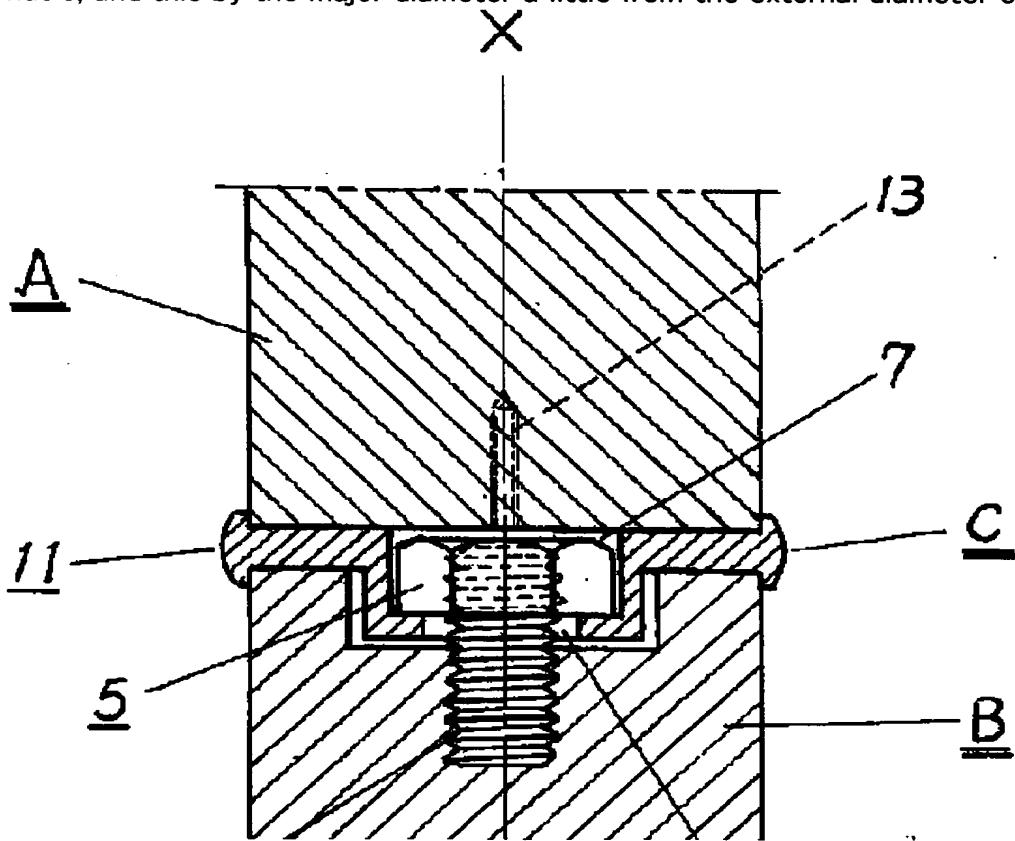
[Address] 1-19, *****, Toyokawa-cho, Toyokawa-shi, Aichi-ken

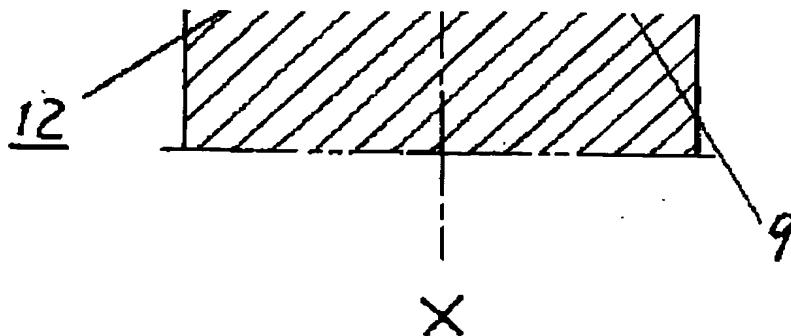
(57) [Abstract] (*****)

[Technical problem] The connection implement in the structures, such as a building and furniture, which connects a pillar-like rod free [attachment and detachment] is offered.

[Means for Solution] It is a marginal wall with an annular periphery edge to vertical both sides of the disk section of a ***** major diameter from the pillar-like rods A and B to connect.

The rod edge **** cavity of ***** is cut at the same center as this disk section so that it may form. the width across corners and height of a hexagon nut 5 which are fitted in an inferior-surface-of-tongue center section — respectively — ***** — the hexagon head to which a large pillar-like height is prepared and a hexagon nut 5 caves in [the upper part] loosely focusing on the shaft orientations of this height — with a hole 7 The connection implement C of the pillar-like rods A and B with which the lower part consists [the periphery section] of a screw-thread shaft 12 of ** length screwed in the main part 11 of a connection implement which drilled the boss to which the letter flange of turning inward is opened for free passage to nothing and the six aforementioned square holes 7, the aforementioned hexagon nut 5, and this by the major diameter a little from the external diameter of thread of this nut.





[Utility model registration claim]

[Claim 1] It is a marginal wall with an annular periphery edge to vertical both sides of the disk section of a ***** major diameter from the pillar-like rod to connect. The rod edge **** cavity of ***** is cut at the same center as this disk section so that it may form. the width across corners and height of a hexagon nut which are fitted in an undersurface center section — respectively — ***** — the hexagon head which prepares a large pillar-like height and penetrates the shaft-orientations center of this height and to which a hexagon nut caves in [the upper part] loosely — with a hole The connection implement of the main part of a connection implement with which the lower part punched a little the boss to which the periphery section makes the flange of the letter of turning inward by the major diameter from the external diameter of thread of this nut, and the pillar-like rod which consists of a screw-thread shaft of ** length screwed in the aforementioned hexagon nut and this.

[Brief Description of the Drawings]

[Drawing 1] Front view in the state where the connected side rod and the connection side rod were connected with the connection implement

[Drawing 2] The main part of a connection implement is the front view showing a cross section a part.

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[Description of Notations]

A Connected side rod

B Connection side rod

C Connection implement

1 Disk Section

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4 Rod Edge **** Cavity

5 Hexagon Nut

6 Pillar-like Height

7 Six Square Holes

8 Letter Flange of Turning Inward

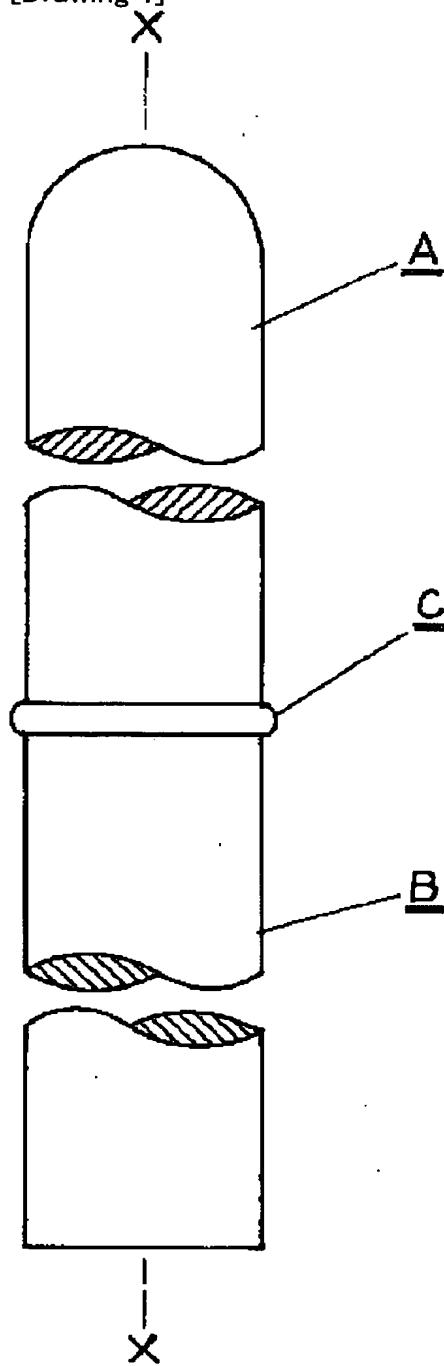
9 Boss

10 Machine Screw Insertion for Attachment — Hole

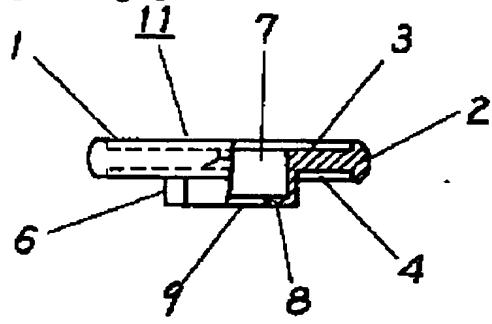
11 Main Part of Connection Implement

12 Screw-Thread Shaft

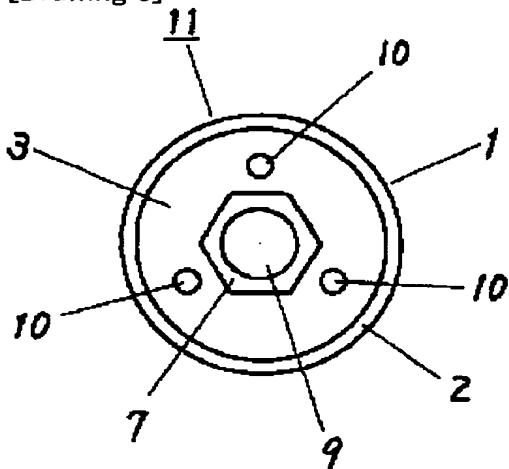
13 Machine Screw for Attachment

16 Cavity
[Drawing 1]

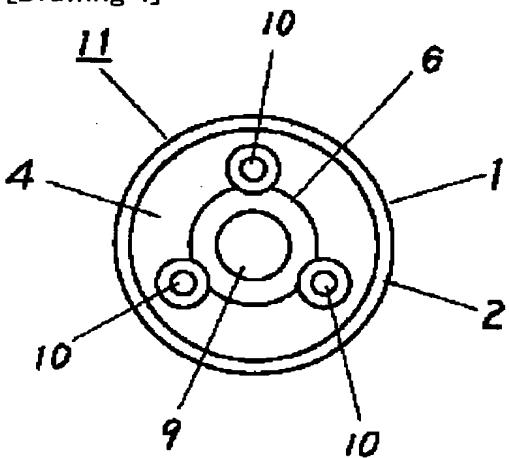
[Drawing 2]



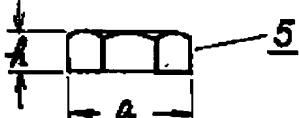
[Drawing 3]



[Drawing 4]



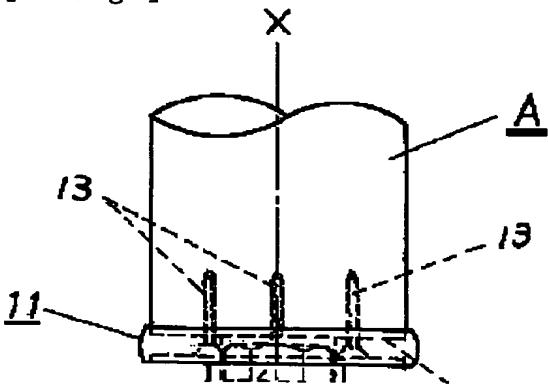
[Drawing 5]

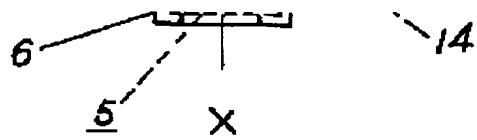


[Drawing 6]

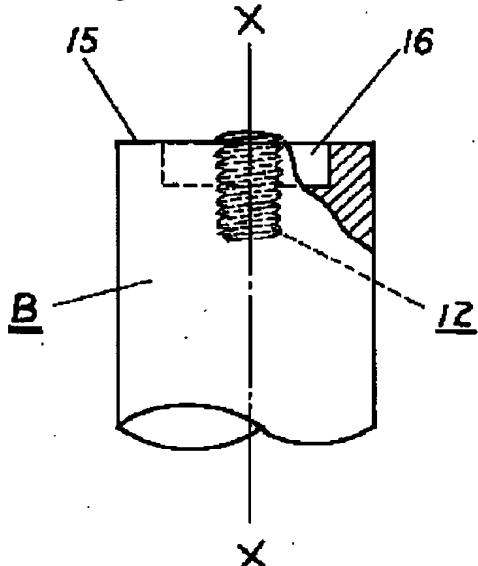


[Drawing 7]

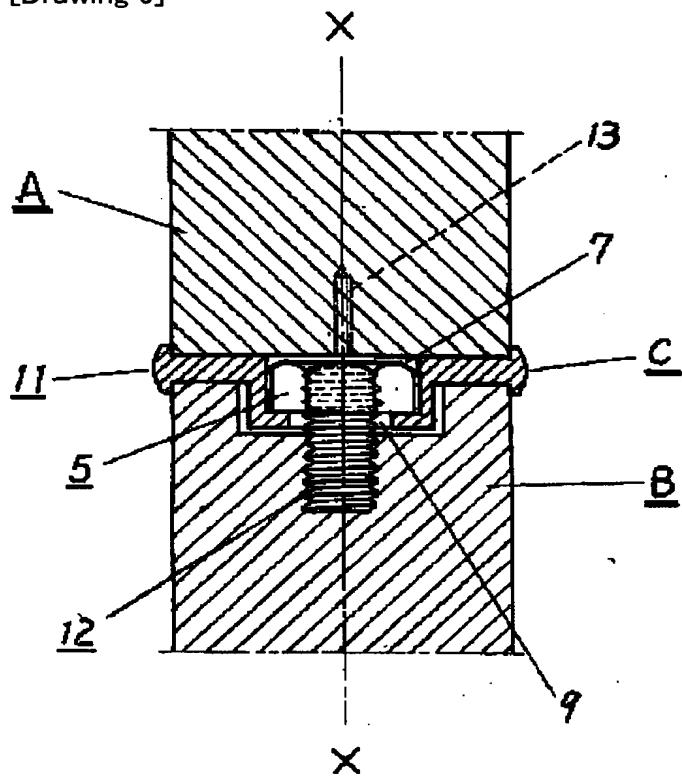




[Drawing 8]



[Drawing 9]



[Detailed explanation of a design]

[0001]

[The field of the technology in which a design belongs]

This design is related with the connection implement in the structures, such as a building and furniture, which connects a pillar-like rod free [attachment and detachment].

[0002]

[Description of the Prior Art]

For connecting conventionally the handrail of a building, and the wooden pillar-like rod used for furniture etc. free [attachment and detachment] the end-face core of the pillar-like rod of a connected side — the screw thread of shaft orientations — a hole — screwing on — the screw thread of the above [core / end-face / of the pillar-like rod by the side of connection] — the screw-thread rod screwed in a hole — shaft orientations — implanting — the screw thread of the pillar-like rod of a connected side — the screw-thread rod of the pillar-like rod by the side of connection was screwed in the state where both end faces carry out a plane of composition, and it has connected with a hole

[0003]

[Problem(s) to be Solved by the Device]

however, the screw thread formed in the connection side edge side of the both sides of the rod to connect in the connection method of the rod like the above — both the hole and the screw-thread rod screwed in this were the shaft orientations of a rod, and since it had to be in the core of each connection side edge side, its working efficiency at the time of processing was bad, and it had the trouble of not suiting mass production

[0004]

[Means for Solving the Problem]

This design inserts a hexagon nut in six square holes of the main part of a connection implement fixed to a connected side rod loosely. Even if there are gap which gave the margin to move this nut a little within 6 square holes, and was implanted in the connection side rod and whose attachment of a shaft it ****s and is some to a center, and an inclination It becomes connecting completely is possible on the same center line, and easy for it to implantation work [of the screw-thread shaft to the connection side rod at the time of processing], without ****ing with a nut, being automatically adjusted on the occasion of screwing of a shaft, and producing trouble in connection of a rod.

[0005]

[The gestalt of implementation of a design]

The connected side rod of the shape of a pillar connected by this design and a connection side rod make the end face by the side of each connection a shaft axis and a right-angled flat surface.

[0006]

The machine screw for attachment (a wood screw is included) which fixes the main part of a connection implement, and the hexagon nut and the main part of a connection implement which are built in this main part to a connected side rod constitutes the connection implement of this design.

[0007]

The main part of a connection implement is the path which is sufficient for fitting in the edge of the aforementioned rod so that a periphery edge may form an annular marginal wall in vertical both sides of the disk section of **** by the ***** major diameter from a rod. The rod edge **** cavity by the same center as the disk section is cut, the pillar-like height of **** is prepared in the center of an inferior surface of tongue, and the shaft-orientations center of this height is penetrated. the upper part by six square holes the machine screw insertion for attachment which drills the boss for the screw-thread shaft insertion whose edge section makes the letter flange of turning inward for the lower part, and penetrates the disk section to the method of an outside of a pillar-like height — the main part of a connection implement which prepared the hole is formed

[0008]

the hexagon head which prepared the main part of a connection implement in the pillar-like height — a hole — inside — this hexagon head — a hole — the inside of the rod edge **** cavity cut in the upper surface of the disk section where the hexagon nut of the size which can move a little inside is inserted in — the connection side edge section of a connected side rod — fitting in — the machine screw insertion for attachment — it binds tight through the machine screw for attachment, respectively to a hole, and the main part of a connection

implement is fixed

[0009]

The circular cavity which fits the pillar-like height of the main part of a connection implement in a center section is prepared in the connection side edge side of a connection side rod.

Implantation fixation of the screw-thread shaft is carried out so that it may expose perpendicularly highly a little from the depth of this cavity at the center, it screws in the hexagon nut built in the main part of a connection implement which was implanted in the connection side rod, and which fixed the shaft to the connected side rod by ***ing, and binds tight, and a connected side rod and a connection side rod are connected free [attachment and detachment] through a connection implement.

[0010]

[Example]

Below, about the example of this design, a drawing is made reference and explained.

Drawing 1 shows the state where the connected side rod A which consists of the shape of a pillar of the diameter of said, and the connection side rod B were connected with the connection implement C.

[0011]

It is a ***** major diameter from rod [of the above / drawing 6 / drawing 2 or] / A (B), and a periphery marginal part is about the annular marginal wall 2 to vertical both sides of the disk section 1 of ****. Consist of the same center as the disk section 1 with the path which is sufficient for fitting in the edge of this rod so that it may form. The large pillar-like height 6 is formed. the width across corners a of the hexagon nut 5 which cuts the rod edge **** cavities 3 and 4 of *****, and carries out a postscript to an inferior-surface-of-tongue center section, and height h — respectively — ***** — The upper part which penetrates the shaft-orientations core of this height 6 by six square holes 7 which a hexagon nut 5 **** loosely The lower part of a major diameter is more nearly circular than the external diameter of thread of a hexagon nut 5 a little, and the boss 9 to which the ulnar-margin section makes the letter flange 8 of turning inward is drilled. the adequate several machine screw insertion for attachment which penetrates the rod edge **** cavities 2 and 3 depending on the method of an outside of the pillar-like height 6 — a hole 10 and 10 — were drilled — A metal or the main part 11 of a connection implement made from plastics is formed, and the connection implement C by the screw-thread shaft 12 of the ** length who screws in this main part 11 of a connection implement, a hexagon nut 5, and a nut 5 and the machine screw 13 for attachment of a required number, and 13 — is constituted.

[0012]

Use of the connection implement C by this design is explained below.

The connected side rod A of the shape of a pillar of the above [drawing 9 / drawing 7 or], and the connection side rod B Both the end faces 14-15 by the side of connection are made into a right-angled flat surface at shaft-axis X-X, and the circular cavity 16 which fits the pillar-like height 6 of the main part 11 of a connection implement in a center section is formed in the end face 15 of the connection side rod B, and it implants and fixes to the center of the cavity 16 of the connection side rod B so that the screw-thread shaft 12 may be exposed perpendicularly [it is higher than the depth of the aforementioned pillar-like height a little, and] in a

[0013]

It is in the state which inserted the hexagon nut 5 in six square holes 7 prepared in the pillar-like height 6 of the main part 11 of a connection implement. Into the rod edge **** cavity 3 cut in the upper surface of the main part 11 of a connection implement, the edge by the side of the connection side edge side 14 of the connected side rod A is fitted in. It lets pass and screws on a hole 10 and 10 —. the machine screw 13 for attachment, and 13 — respectively — the machine screw insertion for attachment — The main part 11 of a connection implement is fixed to the edge of the connected side rod A, it screws in the hexagon nut 5 built in the main part 11 of a connection implement which was implanted in the connection side rod B, and which fixed the shaft 12 to the connected side rod A by ***ing, and binds

tight, and the connected side rod A and the connection side rod B are connected free [attachment and detachment] through the connection implement C.

[0014]

in addition, the path of the rod edge **** cavity 3 prepared in the vertical side of the main part 11 of a connection implement in this design when the paths of the connected side rod A and the connection side rod B differ, and 4 ** — respectively — Rod A — ** — what is necessary is just to cope with it corresponding to the path of Rod B

[0015]

[The effect of this design]

The hexagon nut loosely inserted in six square holes of the main part of a connection implement fixed to the connected side rod of this design, It becomes easy to implantation [of the screw-thread shaft to the connection / can connect completely on the same center line, without causing trouble to connection of a rod, since it ****s and ***** is also automatically adjusted for some gaps or an inclination to attachment of a shaft, and / side rod at the time of processing implanted in the connection side rod since it was possible within 6 square holes to move a little] work.

To moreover, the marginal wall peripheral face of the periphery edge of the disk section of the main part of a connection implement It has the practical effect which was [improve / the added value of goods] excellent by engraving a pattern or giving color.

[Translation done.]